ABSTRACT

The invention disclosed a pigment having angle dependence of the interference colors and its production process, in which mica is used as the substrate and the first metal oxide coating with high refractive index has the optical thickness of silver to golden interference color. And the second metal oxide coating with low refractive index has the optical thickness of the second circle green to the fourth circle interference color. The third coating is a highly refractive metal oxide. The lowly refractive metal oxide is SiO_2 and the highly refractive metal oxide is TiO_2, SnO_2, Fe_2O_3, Fe_3O_4, CoO, Co_2O_3, ZrO_2, Cr_2O_3 or their mixtures as well as complexes. The mica substrate is wet-milled mica powders with a thickness of 0.1-0.9 micrometers and a diameter of 5-250 micrometers. The process involves wet chemical hydrolysis steps to alternately deposit the coatings and modulating the optical thickness of each coatings, to produce the pigment having angle dependence of the interference colors, which has various hues and ranges of angle dependence of the interference colors as well as higher brightness and vivid colors.